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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/828,745

04/21/2004

Michael L. Whitehead

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EXAMINER

ISSING, GREGORY C

ART UNIT

PAPER NUMBER

3662

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/828,745	<b>Applicant(s)</b> WHITEHEAD ET AL.	
	<b>Examiner</b> Gregory C. Issing	<b>Art Unit</b> 3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 31-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 31 and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 31 is not clearly defined. The preamble defines "measuring position of points" whereas the position solution processor determines "an earth-fixed position." The claim fails to clearly and distinctly define what position is being determined.

In claim 31 it is not clear what is meant by "determining a relative orientation of said system." It is unclear what the "relative orientation" is relative to and it is unclear what the "system" is defined by.

In claim 31, the position solution processor is not clearly defined. Firstly, the numbered elements are not understood since in fact they do not represent the three apparent inputs into the processor. The limitation "(1) at least one . . . said second antenna" is merely descriptive of a relationship of receivable satellite signals. Secondly, the limitation "at least one of said satellite signals is received by said first antenna and not by said second antenna" is contradictory to "said signals being received by both of said antennas." As written the claims do not define a position solution processor that determines a position utilizing signals from satellites, a clock signal, and an input signal from said orientation device but more broadly that the processor uses a clock signal and an input from an orientation device. Additionally, the limitation regarding "at least one of said satellite signals is received by said first antenna and not by said second antenna" does not provide a limitation to the system since it is not possible for the system to be capable of providing this as it is determined by satellites' positions over which the user has no control.

In claim 33, the parenthetical expression "(absolute)" is indefinite since it is unclear if this represents a further separate limitation.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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4. Claims 31-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The position solution processor is non-enabling since the determination of an earth-fixed position utilizing the intended inputs is not adequately disclosed or shown in the drawings.

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 31-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Rorabaugh (6,922,635).

7. Rorabaugh teaches a system and method for measuring positions of plural devices in a group (see Figure 4, e.g.) wherein each of a first and second device (101A and 101B, e.g.) includes a GNSS receiver 102 coupled to a respective antenna 120 for receiving a plurality of satellite signals, a time of day clock, and processing capabilities (2:37-50), wherein at least one of the satellite signals is received by one of the devices and not by the other (see 9:44-61 and Figure 4, e.g.). Rorabaugh teaches that position can be obtained if the satellite signals from the two devices are combined as well information representative of their relative positions (see 9:3-15, e.g.). The relative position is suggested as determined in Rorabaugh's incorporated application 10/641,588 (U.S.P.N. 7,031,725, attached hereto) which determines a relative orientation of the devices. The devices share a clock since they each utilize GPS time from the satellite network. It stands within reason that during a measurement interval, one or both of the devices may be stationary; there is nothing in the processing that requires motion of either or both devices in order to operate and determine the locations.

8. Applicant argues that the claims are patentable over Rorabaugh since the points are in close proximity, have known locations relative to each other, an orientation device is provided, and the position solution processor uses inputs from the orientation device. The applicant's arguments have been considered but are not convincing. The devices of Rorabaugh are members of a networked group while Figure 4 shows close proximity separated only by a structure 115 such as a building. Thus, the

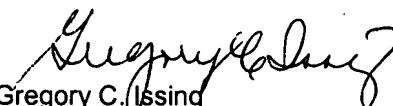
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applicant's arguments with respect to the preamble language fail to provide any patentable distinction over the prior art. The "relative orientation" is based on the locations of the antennas relative to one another which is determined and known in Rorabaugh, see for example 2:49-50, and can be used in a position determination (7:1-3).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory C. Issing whose telephone number is (571)-272-6973. The examiner can normally be reached on Monday - Thursday 6:00 AM- 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571)-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Gregory C. Issing  
Primary Examiner  
Art Unit 3662

gci